

Amendments to the Drawings:

A replacement sheet adding the legend "Stacking Area" in Figure 1 is submitted herewith.

Attachment: Replacement sheet (1)

REMARKS

A replacement sheet identifying the stacking area in Figure 1 is submitted herewith. This represents a translation of the term “Parkbereich” in Figure 1 of the international application.

The replacement sheet containing Figure 2 is withdrawn. The specification has been amended to delete reference numeral 30 identifying the centering element shown in the replacement sheet, and to restore the original language stating that the centering element is not shown. It should be clear that the recesses 17 shown in Figure 2 as originally submitted could receive a centering element having a variety of configurations which would achieve the stated goal of aligning the rails 6, 6' so that the flanges 18 form a butt joint. See paragraph [0019].

The specification has also been amended to improve the wording of the original translation, in order to more accurately describe the apparatus shown in the drawings, and to provide specific basis for language in newly submitted claims. In particular, the guiding rails are described as having identical profiles, as shown in Figure 2, which is why they have mirror symmetry. This, of course, permits extruding a single cross section for use with both rails, which presents a manufacturing advantage.

Newly submitted claim 15 represents a combination of original claims 1, 2, and 3, which were cancelled by preliminary amendment. However the mirror symmetric relationship is now recited in claim 16, and the recesses for the receiving the centering element are recited in claim 17. The reference to a slot is in claim 18. Claims 19 and 20 represent the subject matter in original claims 4 and 5.

Claims 6-14 have been cancelled, thereby obviating the various objections and rejections of these claims. Since newly submitted claim 15 does not recite a centering element, the rejection of claim 6 under 35 U.S.C. §112, first paragraph, is not applicable. Since claim 17 does

not positively recite a centering element, the failure to show it in the drawing cannot provide grounds for an objection. The recesses for receiving such an element are shown.

Before turning to the rejections based on the prior art, the invention will be discussed briefly. The invention relates to a rail guide apparatus which provides a way of stacking panels suspended from carriages, wherein each panel is suspended from a leading carriage and a following carriage. As seen in plan view in Figure 1, the main track includes a pair of side-by-side guiding rails 6, 6', which abut along line 28, and diverge at the stacking area indicated by a rectangle in phantom. The idea behind the invention is to have the carriages move in the same direction along the section 28, so that the panels will be aligned, and then for the leading carriage to follow branch 27 of rail 6 while the following carriage remains with track 6' so that the panels will stack in the stacking area.

This is accomplished essentially by profiling the rails with lower horizontal legs 13 which provide paths 7 for the support rollers 8, and with upper horizontal legs 12 having downward extending flanges 18. Each carriage has a pair of side-by-side guide rollers 9, 10 extending to different heights, so that one of the rollers is guided between the adjacent vertical strut 11 and the adjacent flange 18, and the other roller is guided only by the adjacent vertical strut. In Figure 2, the roller 9 is higher, so that the carriage 5 will follow the rail 6 as the roller 10 passes under the flanges 18. If this is considered the lead carriage, then the following carriage will have the opposite arrangement, i.e. the roller 10 will be higher so that the roller 9 will pass under the flanges 18 as the carriage follows the rail 6'. The panels are thereby brought into parallel or stacked relationship, the ultimate spacing of the rails in the stacking area corresponding approximately to the spacing of the leading and following carriages. There is no need to modify either rail profile where the rails diverge.

As mentioned above, the guide rails preferably have an identical profile, which represents a manufacturing advantage. However it should be apparent that the leading and following carriages may also be identical, but rotated 180 degrees with respect to each other.

Claims 6, 8, 10, 12 and 14 stood rejected under 35 U.S.C. §103 as being unpatentable over Kano US 5,090,171 in view of Zaguroli US 5,598,785 and Taylor US 6,269,944. Since this rejection does not address the guide rollers extending to different heights as recited in claim 7, and as recited in newly submitted independent claim 15, such rejection is moot as to newly submitted claims.

Claims 6-13 stood rejected under 35 U.S.C. §103 as being unpatentable over Matimura US 4,555,828 in view of Zaguroli US 5,598,785 and Taylor US 6,269,944. To the extent that such a rejection would be applied to newly submitted claims, such rejection is traversed for the reasons following.

Matimura discloses a rail guide apparatus having first and second rails formed as a single piece, each with horizontally extending upper and lower legs. Leading and following carriages each have a pair of support rollers which are guided by flanges 6 upstanding from the lower legs, except at intersections, where the flanges are not present. Instead, the intersections are provided with overhead plates D fixed to the underside of the upper legs. These plates cooperate with upstanding pins on the carriages to direct the carriages onto one of three tracks A, B, C depending on the arrangement of pins on the carriage. Thus, the leading and following carriages for each sliding component have the same pin arrangement, while the pin arrangement for carriages on successive sliding components is different. The teaching doesn't relate to stacking. There are no downward extending flanges on the upper horizontal legs, and there is no guide roller which is higher than the other guide roller and is guided between a vertical strut and the

flange. Matimura therefore falls short of several critical limitations recited in applicants' claim 15, and does not suggest any design variation which would render it suitable for stacking panels suspended from carriages.

Zaguroli discloses a hanger bracket for trolley track rails, wherein the rail guide is formed by a pair of formed metal plates with upward extending flanges that are bolted to the bracket. There is no suggestion of downward extending flanges that are used to guide one roller of a pair but not the other.

Taylor discloses a one-piece extruded rail guide having recesses 27 that receive dowel pins 28. Here too there is no suggestion of downward extending flanges that serve to guide one roller of a pair but not the other.


Thus, the prior art of record not only fails to disclose all of applicant's claim limitations, it doesn't even address the same problem, much less solve it.

The newly presently claims being definite and clearly patentable over the prior art of record, withdrawal of the rejections and early allowance are solicited. If any objections remain, a call to the undersigned is requested.

It is believed that no fees or charges are required at this time in connection with the present application. However, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

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